

Attorney Docket No.: UT-0048
Inventors: Rao et al.
Serial No.: 10/502,224
Filing Date: May 17, 2005
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This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of the claims:

Claim 1 (currently amended): ~~A pure homogeneous~~ An isolated population of mammalian astrocyte restricted precursor cells, ~~said population of mammalian astrocyte-restricted precursor cells being isolated from mammalian embryonic or fetal tissue, mammalian embryonic stem (ES) cell cultures, or glial restricted precursor cells, being CD44 immunoreactive and generating astrocytes under conditions in which other populations differentiate into neurons or oligodendrocytes but not oligodendrocytes under oligodendrocyte differentiation conditions of plating in a bFGF-containing medium for 2 days and then switching to a medium containing PDGF or exposure to PDGF and thyroid hormone which express CD44 and nestin and do not express A2B5 or E-NCAM.~~

Claim 2 (previously presented): A method for isolating the pure homogeneous population of mammalian astrocyte-restricted precursor cells of claim 1 comprising isolating from mammalian embryonic or fetal tissue, mammalian embryonic stem (ES) cell cultures, or glial restricted precursor cells a population of cells exhibiting CD44 immunoreactivity.

Claim 3 (original): A pharmaceutical composition comprising the pure homogeneous population of astrocyte restricted precursor cells of claim 1 and a pharmaceutically acceptable carrier.

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Claim 4 (original): The pharmaceutical composition of claim 3 wherein the pharmaceutically acceptable carrier is an implant seeded or coated with the astrocyte restricted precursor cells.

Claim 5 (withdrawn): A method for treating damaged neural cells comprising administering to the damaged neural cells the pharmaceutical composition of claim 3.

Claim 6 (withdrawn): The method of claim 5 wherein the pharmaceutical composition is administered to the damaged neural cells by direct injection to the damaged neural cells or injection at or near a site of damaged neural cells.

Claim 7 (withdrawn): The method of claim 5 wherein the pharmaceutical composition comprises an implant seeded or coated with the astrocyte restricted precursor cells.

Claim 8 (withdrawn): The method of claim 7 wherein the pharmaceutical composition is implanted at or near a site of damaged neural cells.

Claim 9 (withdrawn): The method of claim 5 wherein administering the pharmaceutical composition to the damaged neural cells enhances myelination of the damage neural cells.

Claim 10 (withdrawn): The method of claim 5 wherein administering the pharmaceutical composition to the damaged neural cells reduces scar formation in the damaged neural cells.